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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,267	09/26/2006	Takashi Shimizu	0234-0522PUS1	1855
2292 7590 01/26/2010 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER				
CAPOZZI, CHARLES				
ART UNIT		PAPER NUMBER		
1792				
NOTIFICATION DATE		DELIVERY MODE		
01/26/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/594,267

Applicant(s)

SHIMIZU, TAKASHI

Examiner

Charles J. Capozzi

Art Unit

4172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 5-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SI/22)
Paper No(s)/Mail Date 9/26/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Election/Restrictions

1. Claims 1-4 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group I, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11-13-2009.
2. Applicant's election without traverse of claims 5-7 in the reply filed on 11-13-09 is acknowledged.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5 and 6 contain the trademark/trade name "Teflon". Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe "polytetrafluoroethylene or PTFE" and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worm (US 2003/0047202) in further view of Sajoto et al (USP 6,527,865). The embodiment of Figure 3 is being used for this rejection. Figure 1 and Figure 2 are referenced because they show all of the parts.

7. Regarding claims 5 and 6, Worm (implicitly) teaches a supercritical treatment apparatus, comprising: a sealable raw-material vessel (supply S1, [0081], see Fig. 3) into which a solution containing at least one organic raw material dissolved in a fluorinated compound may be introduced under atmospheric pressure [0081, 0082], a high-pressure vessel in which a supercritical fluid is capable of being stored (conditioning unit C1, [0101], see Fig. 3), a liquid pump (fluid transfer device P3, [0101], see Fig. 3) for pressurizing the solution and introducing the pressurized solution into the

high-pressure vessel (conditioning unit C1), and a mechanism (feed line L1, [0097], see Fig. 3) for pressure-sending the solution from the sealable raw-material vessel (supply S1) into the solution-feeding pump (fluid transfer device P3), whereby capable of allowing to cause reaction of the organic raw material in a supercritical condition inside the high-pressure vessel (conditioning unit C1) or a reaction tank (pressure chamber 410), to form a coating of a reaction product on a substrate (wafer 5, [0076], see Fig. 1) or to make solid fine particles of a reaction product.

8. Worm does not teach an O-ring made from Teflon (registered trademark) that is used for the raw material vessel (supply S1), and a metal gasket or a metal O-ring or an O-ring made from Teflon (registered trademark) that is used for the high-pressure vessel (conditioning unit 1). However, in the same field of endeavor, Sajoto et al teach an O-ring made from Teflon (registered trademark) (O-ring seal 50, col. 5, lines 41-46) that may be used for a raw material vessel or a high-pressure vessel for the benefit of a seal mechanism. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the O-ring taught by the Sajoto with the vessels taught by Worm for the benefit of a sealing mechanism.

9. Regarding claim 7, Worm teaches a supercritical treatment apparatus, wherein the supercritical fluid may be supercritical carbon dioxide [0097].

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Perrut (US 2003/0031784) and Muraoka et al (US 2004/0031441) disclose supercritical treatment apparatuses that are capable of reacting

an organic raw material in a supercritical condition inside a high-pressure vessel or a reaction tank to form a coating of a reaction product on a substrate or to make solid fine particles of a reaction product.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles J. Capozzi whose telephone number is (571) 270-3638. The examiner can normally be reached on M-F, 8:30am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Ortiz can be reached on 571-272-1206. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/cjc/

***/Angela Ortiz/
Supervisory Patent Examiner, Art Unit 4172***